



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,407	08/27/2003	Ricky W. Purcell	1443.052US1	6552
21186	7590	05/15/2007	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			PATEL, TARLA R	
ART UNIT		PAPER NUMBER		
		3772		
MAIL DATE		DELIVERY MODE		
		05/15/2007 PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/650,407	PURCELL, RICKY W.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tarla R. Patel	3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11/28/06.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 15-37 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 3/20/07.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Election/Restrictions***

2. This application contains claims 15-37 are drawn to an invention nonelected with traverse in the reply filed on 3/1/07. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2,4,7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhang et al. (5,658,583).

Zhang et al. discloses a heat patch comprising of an enclosure having gas-permeable first layer (26) and second layer (16) bonded together, where in

gas permeable first layer includes an inner surface and an outer surface (see fig 1), wherein the entire first layer is gas-permeable (column 6 lines 9-20) and a heating composition (28) is located inside the enclosure, which generates heat (column 6 lines 22-28) when a gas is received through first layer. A gas-permeable cover (31) is detachably mounted to said outer surface of first layer (column 6 lines 16-20).

With respect to claim 2, Zhang et al. discloses heat patch include heating composition that comprise iron powder, carbon (reaction promoter), water retaining agent, chloride (salt) and water (column 4 lines 1-4).

With respect to claim 4, Zhang et al. discloses first layer is polyethylene (column 4 lines 5-7).

With respect to claim 7, Zhang et al. discloses a heat patch comprising a heating composition that is capable of generating heat when air is passed through first layer (column 6 lines 22-28).

With respect to claim 8, Zhang et al. discloses a heat patch gas-impermeable cover includes a plurality of portions (31 shown in figure 1) detachably mounted to outer surface of gas-permeable first layer (column 11, lines 7-11).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Zhang et al. in view of Argaud (4,963,360).

Zhang et al. substantially disclose the invention, see rejection to claims 1-

2,4 and 7 above; however, Zhang et al. does not discloses a heat patch

having a second layer and cover each being made of polyethylene film.

However, Argaud teaches a heat patch having gas permeable first and

second layers made of polyethylene film (column 2 lines 8-14). At the time

of the invention was made, it would have been obvious to one skilled in the

art to modify the heat patch of Zhang et al. to have polyethylene film

second layers to have better flow of air to the composition and more heat to

the skin being treated of the user, since it has been held to be within the

general skill of a worker in the art to select a known material on the basis of

its suitability for the intended use as a matter of obvious design choice. In

re Leshin, 125 USPQ 416.

It would have also been obvious to one having ordinary skill in the art at the time the invention was made to make the cover of Zhang et al. with polyethylene film as taught by Argaud to have better air permeability through it, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

7. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (5,658,583) in view of Kuratomi (4,747,841).

Zhang et al. substantially disclose the invention, see rejection to claims 1-2,4 and 7 above; however Zhang et al. does not specifically discloses a heat patch having a heating composition that maintains the temperature of second layer about 38°C-40°C, or 40°C-42°C, or 42°C-45°C when composition is exposed to air.

However Kuratomi discloses a heat patch it maintains the temperature of second layer to be at between or about 40°C-45°C when composition is exposed to air (column 2 lines 62-64) by removing sealing plate (14). The disclosed range of 40-45C meets the claim range limitation of claim 9-11, since it overlaps in at least part of each range. At the time of the invention

was made, it would have been obvious to one skilled in the art to modify the heat patch of Zhang et al. to use Kuratomi's teaching of maintaining the temperature of second layer about 40-45 degree centigrade when the membrane is exposed to air (gas) to be able to reach desirable temperature to allow more customize treatment of individual by the heat patch.

With respect to claims 10-11, Zhang et al. discloses plurality of portions (column 11, lines 7-12). Zhang et al. further disclose a few small pieces of tape (30) to peel off and cover opening (26) to regulate the airflow is equivalent to required plurality of portions including strips.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang as applied to claims 9-12 above, further in view of Ingram (5,366,491).

Zhang substantially disclose the invention as claimed, see rejection to claims 1-2,4,7 and 8 above; however, Kuratomi and Zhang do not disclose a heat patch having plurality of portions with information related to heat generated by the heat patch when one or more portions is removed from the first layer.

However, Ingram discloses a heat patch with temperature indicating means (20) that includes a liquid crystal temperature-indicating strip (22), which indicates the temperature of the skin (column 4 lines 1-13). At the time of the invention was made, it would have been obvious to one skilled in the art to modify the heat patch of Kuratomi and Zhang to include the temperature indicating strip of the Ingram's heat patch to allow monitoring the use of the heat patch for therapeutic level without damaging the user's skin with higher temperature.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang and Ingram, as applied to claims 13 above, further in view of Lachenbruch (6,755,852).

Zhang and Ingram substantially disclose the invention; however Zhang, and Ingram do not disclose a heat patch having at least some of plurality of portions that are different colors, where the different colors give information related to heat generated by the patch, when one or more portions are removed from the first layer.

However, Lachenbruch discloses a body wrap for inducing a temperature change. The wrap includes a color-coded temperature indicator on the outside of the wrap (column 7 lines 23-29); the indication is shown by

showing color change for temperature. At the time of the invention was made, it would have been obvious to one skilled in the art to modify the heat patch of Kuratomi, Zhang and Ingram to include the color-coded temperature indicator which is taught by Lachenbruch to be able to easily see the temperature change on the skin to have fastest response to remove it if temperature rise above the desirable temperature for therapy.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Usui (5,879,378) discloses a heat patch with gas-permeable made of polyethylene material, composition made of metal powder, carbon powder, metallic chloride and water. Composition generates heat by exothermic method.

Kunamoto (2006/0276863) discloses a warming tool with color change when there is change in the temperature of the pad.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarla R. Patel whose telephone number is 571-272-3143. The examiner can normally be reached on M-F 6-3.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on 571-272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TP

*Patricia Bianco*  
PATRICIA BIANCO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700  
*5/11/01*